



FEops is a revenue-generating emerging company that has developed disruptive technology: a cloud-based simulation platform designed to assist clinicians in preoperatively assessing the effect of device-and-host interaction, with the ultimate goal of predicting and preventing complications of transcatheter-based structural heart interventions. Its first product, CE-marked **TAVIguide™**, is currently the only such technology on the market that predicts how a Transcatheter Aortic Valve Implant (TAVI) will interact with a patient's unique aortic anatomy. The FEops pipeline includes an additional three simulation products for transcatheter-based structural heart disease interventions. www.feops.com

DISPITE THE RAPID ADOPTION OF TRANSCATHETER-BASED INTERVENTIONS TO TREAT STRUCTURAL HEART DISEASE, SEVERE COMPLICATIONS STILL EXIST. In the TAVI field, the main complications are ParaValvular Leakage (PVL) and Permanent PaceMaker placement (PPM), occurring in more than 20% of the procedures for some of the commercially available TAVI devices. In the mitral space, concerns arise regarding leakage and/or potential obstruction of the left ventricular outflow tract after transcatheter mitral valve replacement. For the left atrial appendage, the geometry of the target lesion is so complex and diverse that in more than 30% of the procedures, device-recaptures are required and thus the wrong device size was selected preoperatively. **How can transcatheter-based structural heart disease interventions be made safer and more effective?**

DISRUPTIVE SIMULATION-AND-PLANNING SOLUTION FROM FEOPS. FEops is the first company to be cleared to market a patient-based simulation model for structural heart interventions that allows prediction of the interaction between a device and a patient's unique anatomy to help preoperatively assess and reduce risk of complications for structural heart interventions. Renowned key opinion leaders confirm that in up to 30% of their patient populations they are unable to accurately predict preoperatively a positive clinical outcome for a transcatheter-based interventional procedure.

INITIAL COMMERCIAL PRODUCT HAS SIGNIFICANT COMPETITIVE ADVANTAGES. TAVIguide™ is the only available CE-marked simulation technology for TAVI. FEops has built a strong collaborative network with device manufacturers and KOLs. Use of TAVIguide™ shows positive health economics; and, it offers fast turnaround results and attractive economies of scale as it does not require any devices (compared to 3D printing, for example). TAVIguide™ currently includes simulations of CoreValve® (Medtronic) and CoreValve® Evolut™ (Medtronic), and Lotus™ Valve System (Boston Scientific). The predictive power of the FEops simulations relating to frame deformation, native leaflet calcium displacement and paravalvular leakage has clearly been demonstrated in large retrospective cohorts and the data published in *JACC: Cardiovascular Interventions*, and *EuroIntervention*.

THE FEOPS SIMULATION PLATFORM INCLUDES A PIPELINE OF PRODUCTS. Structural heart disease manifests itself in several etiologies affecting different regions of the heart. FEops' focus is on the four distinct emerging transcatheter interventions for structural heart disease: TAVI, MITRAL, LAA, TRICUSPID (see below).

THE FEOPS LEADERSHIP TEAM IS EXPERIENCED IN R&D AND PROVEN IN COMMERCIAL DEVELOPMENT. The company's management team is led by Dr. Matthieu De Beule, a visionary entrepreneur who has transformed FEops from a university spin-off into a fast-growing start-up company. In addition, management includes Dr. Peter Mortier, Chief Technology Officer, an internationally recognized computer simulation expert; Tom Haeleydt, Director Business Development, who has more than 20 years of sales, marketing and business development experience in the cardiovascular device industry. The FEops Board of Directors is led by Rob Michiels, one of the most successful executives and investors in the transcatheter valve replacement industry. Rob played a key role in the exit of CoreValve, which was acquired by Medtronic in 2009 for \$850 million; and in the exit of CardiAQ Valve Technologies, which was acquired by Edwards Lifesciences in 2015 for \$400 million.

CONTACTS & KEY INFORMATION

Domicile	Technologiepark 3 B-9052 Gent, Belgium
Investors	Capricorn Venture Partners; The Flemish Investment Company (PMV); private investors.
Sector	Transcatheter-Based Structural Heart Interventions.
Platform	Patient-based simulation technology to preoperatively assess impact of device/host interaction.
Initial Product, Clinical Need	CE-marked TAVIguide™ provides clinicians with first-ever insights into the interaction between an individual patient's unique anatomy and the transcatheter aortic valve implant, helping to determine the optimal device size and positioning preoperatively.

LEADERSHIP TEAM

Matthieu De Beule Chief Executive Officer, Director, Co-Founder
Peter Mortier Chief Technology Officer, Director, Co-Founder
Tom Haeleydt Director Business Development
Rob Michiels Chairman of the Board of Directors
Marc Lambrechts Capricorn Venture Partners; FEops Director
Alexandra Tolia PMV; FEops Director

CLINICIANS' OPINIONS

Peter de Jaegere, MD
Erasmus Medical Center, Rotterdam, Netherlands
"I believe this technology will have an important clinical implication. It will allow the selection of both the type and size of the valve for a particular patient ('tailored medicine'), which will increase the safety and efficacy of TAVI."

Ronak Rajani, MD
Guy's and St. Thomas' Hospital, London
"FEops is leading the way in image segmentation and computer modeling. With an emphasis on structural intervention, new solutions are being developed to enable clinicians to better plan for their procedures and to predict outcomes more robustly than historical geometric data alone."

Carlos Ruiz, MD
Hackensack Medical Center, New York, NY (USA)
"Preoperatively simulating different scenarios of the intervention will undoubtedly play a key role in further reducing complications for structural heart interventions."

FEOPS' PIPELINE FOR TRANSCATHETER STRUCTURAL HEART INTERVENTIONS

TAVIguide™

1. Transcatheter Aortic Valve Implantation (TAVI).

| In 2015, about 75,000 TAVI procedures were performed worldwide.

| Based on expanding indications for TAVI interventions, 250,000 procedures are expected worldwide in 2020.

MITRALguide™

2. Transcatheter Mitral Valve Repair/Replacement.

| Market potential for minimally invasive treatments of mitral valve disease is expected to exceed two times the size of the TAVI market.

| The transcatheter mitral valve market is expected to kick-off in 2018.

TRICUSPIDguide™

3. Transcatheter Tricuspid Valve Repair/Replacement.

| Surgical intervention for TR is very high-risk. There is a significant unmet need for an interventional cardiology solution to TR.

| The tricuspid market is expected to start commercialization in 2019.

LAAguide™

4. Left Atrial Appendage closure market potential is estimated, conservatively, at 50,000 interventions per year by 2019.

| The LAA has complex geometric structures making preop simulation planning critically important to increase safety and efficacy.